

Remarks

Claims 1-19 remain pending in this application for consideration. Independent claim 1 has been amended to clarify that the message is provided to the relay server when the messaging server is inoperable such that the message is undeliverable to the messaging server. Support for the amendment is found in the specification of the originally filed application, thus Applicant believes that no new matter is introduced by the amendment.

Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 1-4, 7-12, and 15-19 under 35 U.S.C § 103(a) as being obvious, and thus unpatentable, over U.S. Patent No. 6,438,583 to McDowell et al. ("McDowell") in view of U.S. Patent No. 6,047,331 to Medard et al. ("Medard"), and rejected claims 5, 6, 13, and 14 as being obvious, and thus unpatentable, over McDowell in view of Medard, and further in view of U.S. Patent No. 6,130,875 to Doshi et al. ("Doshi") (Applicant notes that the Office Action incorrectly referred to the Doshi reference as patent number 6,182,224). Applicant respectfully traverses the Examiner's rejections and requests reconsideration for the reasons discussed below.

Present Invention

The present invention is directed to a method and network for providing a reliable messaging service, such as that used for routing e-mails between computers over the Internet. As best seen in FIG. 1 of the application, the network 10 includes a Domain Name System (DNS) server 12 operably connected to a messaging server 14, and a relay server 16. In operation, DNS server 12 routes a message to messaging server 14. If messaging server 14 is inoperable such that the message is undeliverable, DNS server 12 instead routes the message to

relay server 16. Relay server 16 re-routes the message to messaging server 14 when messaging server 14 is operable.

Claims 1-4, 7-12, and 15-19

The Examiner rejected claims 1-4, 7-12 and 15-19 under 35 U.S.C. § 103 as being obvious, and thus unpatentable over McDowell in view of Medard. Applicant respectfully disagrees.

Independent claims 1 and 9 (and thus dependent claims 3-4, 7-8, 10-12, and 15-19) of the present application require at least: (1) a messaging serve (the intended destination of a particular message) and (2) a relay server (used to queue messages intended for the messaging server that are undeliverable due to the messaging server being inoperable). As is apparent from the language of independent claims 1 and 9, in operation, a message is initially routed to the messaging server (the message originating from, for example, a DNS server). If the messaging server is inoperable, the message is routed to a relay server, which re-routes the message to the messaging server when the messaging server is operable, thus the message is received by the messaging server.

Thus, the claimed invention describes a system and method in which messages that would otherwise simply be lost due to their being sent to an inoperable messaging server, are in fact delivered to the messaging server once it becomes operable.

McDowell

McDowell discloses a system and method for re-routing email messages received at a first, operable Internet Service Provider (ISP) to a second, operable ISP. McDowell addresses the situation where a user switches from one ISP to another, but still receives email messages from senders unaware of the change, thus the emails are addressed to the first ISP. In

McDowell, the errant email messages are: (1) received by the operable first ISP, (2) identified as belonging to a former subscriber, and then (3) either (a) forwarded directly to the second ISP, or (b) forwarded to a re-route sever which in turn forwards the message to the second ISP. Thus McDowell discloses only a system in which email messages are successfully received by an operable first ISP. After successfully receiving the messages, the operable first ISP identifies that the message is intended for a recipient who no longer subscribes to the first ISP, and forwards the message on to either a second ISP or a re-route server.

McDowell, however, makes no provision for handling messages in the case of an inoperable first ISP. If the first ISP in McDowell was inoperable, it would not be able to receive the email message and would thus not be able to identify the intended recipient of the message as a former subscriber, and would not be able to then forward the message on to a second ISP or re-route server. Thus, the system taught by McDowell would simply lose any messages sent to an inoperable first ISP as there is no structure or capability disclosed in McDowell to handle an undeliverable message.

By contrast, the claims of the present application are directed to a system and method in which a message sent to a messaging server that is inoperable, is provided to a relay server which re-routes the message to that same messaging server, when that messaging server is operable and can receive the message. Thus, a message sent to an inoperable messaging server will not simply be lost, as would happen in the system of McDowell and in other systems known in the art. Instead, the undeliverable message is provided to a relay server which serves to store the message until the messaging server becomes operable and the relay server can re-route the message to the now-operable messaging server.

Medard

Medard discloses an automatic protection switching system in which each of the nodes of the network stores pre-defined primary and secondary paths for each source/destination node pair in the network. In the event that an intermediate node between a particular source/destination becomes inoperable, thus disrupting the primary path between the source and destination, the network will use the secondary path to avoid the inoperable node to deliver the message to the desired destination. Thus, Medard teaches a method of circumventing an inoperable node in a network in order to deliver a message to its intended final destination.

Medard, however, does not teach, suggest, or disclose any structure or capability of delivering a message to an inoperable node once that node becomes operable again. In the event of an inoperable node, the system of Medard does not queue messages for later delivery to that node, it simply chooses a delivery path around that node. If an inoperable node in Medard were to become operable, it would again be included in the network routing path, but that node would certainly not then receive any messages sent through the network during the time that node was inoperable. Medard teaches only a routing scheme for messages currently traveling through the network, but discloses nothing about handling undeliverable messages.

Unlike Medard, the system claimed in the present application does not re-route a message to avoid an inoperable server in the course of travelling to its final destination. The inoperable messaging server in the present application is the final destination. Thus, the system and method claimed in the present application allow a message intended for a particular messaging sever to be provided to a relay server which will re-route the message to that particular messaging server when that particular messaging server is operable.

Combination of McDowell and Medard

The Examiner argues that combining the email re-routing system of McDowell with the automatic protection switching system of Medard would arrive at the system claimed in the present application. The Examiner states that McDowell teaches a method for providing a messaging service on a computer network, comprising the steps of (a) routing a message to a messaging server "old ISP email server" and (b) providing the message to a relay server "re-route server" when the message is undeliverable to the messaging server, and that Medard teaches step (c) re-routing the message from the relay server to the messaging server when operational, and that the combination of the two thus teaches steps (a), (b), and (c) as in claims of the present application.

First, the Examiner's assertion that McDowell teaches step (b) of providing the message to a relay server "re-route server" when the message is undeliverable to the messaging server (old ISP server), is incorrect. As discussed in detail above, McDowell does not teach, suggest, or disclose any capability whatsoever of handling a message if the messaging server is inoperable. In fact, the forwarding of messages in McDowell can only occur if the "old ISP server" is operable and the message is received by the "old ISP server", as it is the "old ISP server" in McDowell that identifies the intended recipient of the email message and then forwards that message to either a new ISP server or a re-route server. If the "old ISP server" of McDowell were inoperable, any incoming message would clearly not be re-routed to a new ISP sever or to a re-route server, it would simply be lost, as McDowell makes absolutely no provision for handling messages which are not received by the "old ISP server" such as in the case of an inoperable "old ISP server". Thus, the Examiner's assertion that McDowell teaches step (b) "providing the message to a relay server when the message is undeliverable to the messaging server", as required in the claims of the present application, is incorrect.

Furthermore, the Examiner states that the concept of re-routing a message to an operable destination via a different path is well known in the art, as disclosed in Medard, and further states that this concept satisfies step (c) of claim 1 of the present application which requires "re-routing the message from the relay server to the messaging server when the messaging server is operational." Applicant agrees that Medard (and all other automatic protection switching schemes) teaches re-routing a message to an operable final destination via a secondary path when a node along the primary path is inoperable, but disagrees that this is what is called for in the claims of the present application.

The present application discloses a system and method where, if a messaging server is inoperable, the message intended for that messaging server is routed to a relay server which will re-route the message to that same messaging server when that messaging server is operable, thus the message is delivered to that messaging server.

This is easily distinguishable from the system in Medard in which a message, on its way to a final destination, encounters an inoperable node in the network and takes a different path to its final destination. In Medard, the inoperable node is an obstacle in the path to the final destination, while in the present invention the inoperable messaging server is the final destination. There is absolutely no disclosure, teaching or suggestion in Medard of any capability to handle a message intended for a node which is inoperable. In fact, any message sent to an inoperable node in Medard would be lost. Medard teaches a system in which a message can reach its final destination by avoiding an inoperable node in its path, while the present application discloses a system in which a message reaches an inoperable messaging server by re-routing the message to that messaging server when it is operable.

Neither McDowell nor Medard, nor their combination, teaches, suggests, or discloses either: (1) providing the message to a relay server when the message is undeliverable to the messaging server, or (2) re-routing the message from the relay server to the messaging server when the messaging server is operational. Combining the email rerouting system of McDowell with the automatic protection switching of Medard would only provide an email system that could re-route messages received by its operable "old ISP server" through a network employing automatic protection switching, which would allow the forwarded message to avoid inoperable nodes in the network path. There would not, however, be any ability to handle messages which are undeliverable due to an inoperable messaging server by routing them to a relay server, or to re-route those messages from the relay server to that same messaging server once it is operable.

Since neither McDowell, Medard, or the combination of the two teach, disclose or suggest the invention disclosed in any of the claims of the present application, the Examiner's rejection is improper, and should be withdrawn.

Claims 5, 6, 13, and 14

The Examiner also rejected dependent claims 5-6 and 13-14 (which depend from independent claims 1 and 9, respectively) under 35 U.S.C. § 103 as being obvious over McDowell in view of Medard, and further in view of U.S. Patent No. 6,182,224 to Doshi et al. These dependent claims incorporate all of the limitations of the independent claims from which they depend. Thus, for the reasons discussed above with respect to independent claims 1 and 9, claims 5, 6, 13 and 14 are also allowable, and the Examiner's rejection is improper and should be withdrawn.

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In view of the foregoing amendments and remarks, it is respectfully submitted that the claims are now in condition for allowance and eventual issuance, and such action is respectfully requested. Should the Examiner have any further questions or comments that need be addressed in order to obtain allowance, he is invited to contact the undersigned attorney at the number listed below.

Acknowledgement of receipt is respectfully requested.

Respectfully submitted,

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